44 (new). A homogeneous insoluble protein which binds human tumor necrosis factor and has an apparent molecular weight of about 55 kilodaltons on a nonreducing SDS-polyacrylamide gel.

amend per E1

45 (new). The protein of claim 44 which [contains] comprises the amino acid sequence of Figure 1.

46 (new). A homogenous protein which has an apparent molecular weight of about 55 kilodaltons on a nonreducing SDS-polyacrylamide gel or a soluble fragment thereof, both of which bind human tumor necrosis factor and both of which are recombinantly produced in a host cell from a DNA sequence heterologous to said host cell, which DNA sequence encodes said protein or said fragment.

B1

47 (new). ~~The protein of claim 46 which is encoded by the DNA sequence of Figure 1.~~ Cancelled per F1

Amended per E1

48 (new). A recombinant protein encoded by a polynucleotide which comprises two DNA subsequences, one of said subsequences encoding a soluble fragment of an insoluble protein capable of binding human tumor necrosis factor, and the other of said subsequences encoding all of the domains of the constant region of the heavy chain of a human immunoglobulin other than the first domain of said constant region.

Cancelled per C

49 (new). A recombinant protein of claim 48 wherein the insoluble protein capable of binding human tumor necrosis factor has an apparent molecular weight of about 55 kilodaltons on a nonreducing SDS-poyacrylamide gel.

50 (new). A recombinant protein of claim 49 wherein the human immunoglobulin is selected from the group IgG, IgM, IgA, or IgE.

51 (new). A recombinant protein of claim 50 wherein the human immunoglobulin is IgG.

52 (new). A recombinant protein of claim 51 wherein the IgG is IgG1.

53 (new). A recombinant protein of claim 51 wherein the IgG is IgG3.

54 (new). An antibody directed against the protein of claim 44.

55. A process for the isolation of a protein of claim 44, which process comprises carrying out the following purification steps in the following sequence: production of a cell extract, immune affinity chromatography, and/or single or multiple ligand affinity chromatography, HPLC and SDS-PAGE.

REMARKS

Claims 1-43 were pending in the subject application, and have been cancelled without prejudice and replaced by claims 44-55, now pending and under consideration. The subject matter of claims 44-53 is being prosecuted in parent application U.S. Serial No. 08/095,640.

Support for the new claims is found in the parent application. No new matter is included.